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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/859,513	05/18/2001	Keizo Hosoda	208578US0	4271
22850	7590	02/19/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			BEREZNY, NEAL	
			ART UNIT	PAPER NUMBER
			2823	

DATE MAILED: 02/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Advisory Action</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/859,513	HOSODA ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Neal Berezny	2823

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 15 January 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY [check either a) or b)]**

- a)  The period for reply expires 3 months from the mailing date of the final rejection.
- b)  The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.  
ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1.  A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2.  The proposed amendment(s) will not be entered because:
  - (a)  they raise new issues that would require further consideration and/or search (see NOTE below);
  - (b)  they raise the issue of new matter (see Note below);
  - (c)  they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
  - (d)  they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_

3.  Applicant's reply has overcome the following rejection(s): 112.2.
4.  Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5.  The a) affidavit, b) exhibit, or c) request for reconsideration has been considered but does NOT place the application in condition for allowance because: see advisory.
6.  The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7.  For purposes of Appeal, the proposed amendment(s) a) will not be entered or b) will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_

Claim(s) objected to: \_\_\_\_\_

Claim(s) rejected: 1,5,9 and 12-24.

Claim(s) withdrawn from consideration: \_\_\_\_\_

8.  The drawing correction filed on \_\_\_\_\_ is a) approved or b) disapproved by the Examiner.

9.  Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_

10.  Other: \_\_\_\_\_



**W. DAVID COLEMAN  
PRIMARY EXAMINER**

**ADVISORY ACTION**

1. The amendment filed 1/15/04 under 37 CFR 1.116 in reply to the final rejection has been considered but is not deemed to place the application in condition for allowance and will not be entered because: The proposed amendment raises new issues that would require further consideration and/or search.

***Response to Arguments***

2. Applicant's arguments filed 1/15/04 have been fully considered but they are not persuasive. Applicant's amendment of claim 5 would overcome the examiner's 112, par.2 rejection, but does not necessarily place the application in condition for allowance. Applicant argues that although Narwankar teaches both a densifying anneal and an oxygen stuffing process for Ta<sub>2</sub>O<sub>5</sub>, that Narwankar does not teach the specific sequence of applying these two process. Claim 1 as a proposed amendment teaches the oxygen stuffing and then the densifying anneal. Claims 5, 9, and 20 teach densifying and the stuffing. Examiner's final rejection asserts that it would be obvious to one of ordinary skill in the art at the time of the invention to perform these two process steps. Examiner is not convinced that merely permuting the order of two process steps would constitute a non-obvious modification of Narwankar, nor would it take undue experimentation to try just the two permutations, nor is examiner convinced that unexpected results would arise therefrom. Applicant does assert that performing the anneal and then the stuffing step helps reduce the oxidation of the bottom electrode. Given that both the densifying

and stuffing steps of the dielectric are so much more important than the order of these steps, examiner is not convinced that the order is non-obvious.

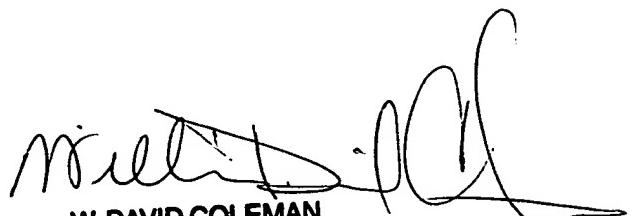
## CONCLUSION

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neal Berezny whose telephone number is (571) 272-1853. The examiner can normally be reached on M-F 9:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on (571) 272-1855. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NB  
February 18, 2004



W. DAVID COLEMAN  
PRIMARY EXAMINER